

2.16am MT

PATENT
ATTORNEY DOCKET NO.: 044574-5064-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: John R. CARLSON *et al.*)
Application No.: 09/491,577) Group Art Unit: 1646
Filed: January 25, 2000) Examiner: J. Murphy
For: DROSOPHILA ODORANT RECEPTORS (as amended))

MAIL STOP ISSUE FEE
Commissioner for Patents
U.S. Patent and Trademark Office
2011 South Clark Place, Customer Window
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

Sir:

TRANSMITTAL OF NEW DRAWINGS TO CORRECT INFORMALITIES


To correct the informalities in the drawings as noted on the PTO-37, applicants submit herewith ten (10) sheets of new drawings containing Figures 1A-1F, 2A-2C, 3A-E, 4A-4D, 5A-5G, 6A-6F.

The three month period of response set in the Notice of Allowability (PTO-37) expires on July 22, 2003 and this submission is on or before the expiration date.

If there are any fees due in connection with the filing of these drawings, the Commissioner is hereby authorized to charge any additional fees due to Deposit Account No. 50-0310.

Respectfully submitted,

MORGAN, LEWIS & BOCKIUS LLP


Erich E. Veitenheimer
Reg. No. 40,420

Dated: June 11, 2003

Customer No. 09629
MORGAN, LEWIS & BOCKIUS LLP
1111 Pennsylvania Avenue, NW
Washington, D.C. 20004
(202)739-3001

04/03

FIG. 6A

22A.2

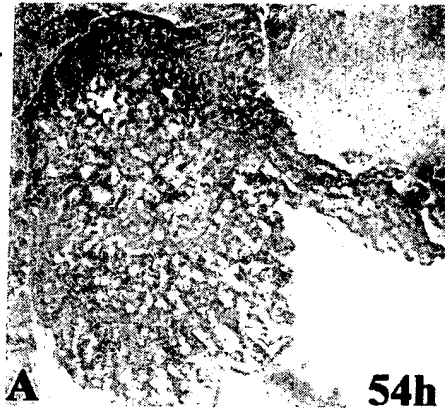


FIG. 6B



FIG. 6C

47E.1

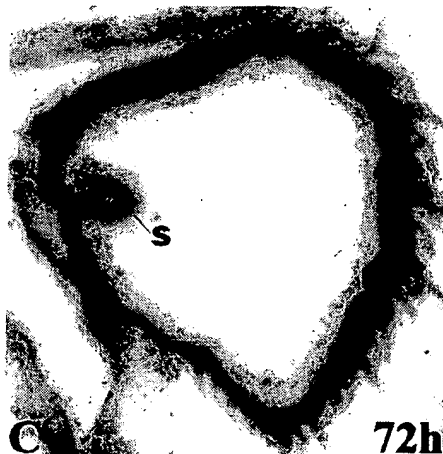


FIG. 6D



FIG. 6E

OS-E



FIG. 6F



FIG. 5A



FIG. 5C



FIG. 5E



FIG. 5B



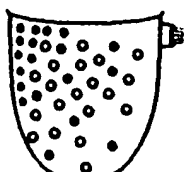
FIG. 5D



FIG. 5F



FIG. 5G



- 47E.1
- 25A.1
- 22A.2

FIG. 4A



FIG. 4B

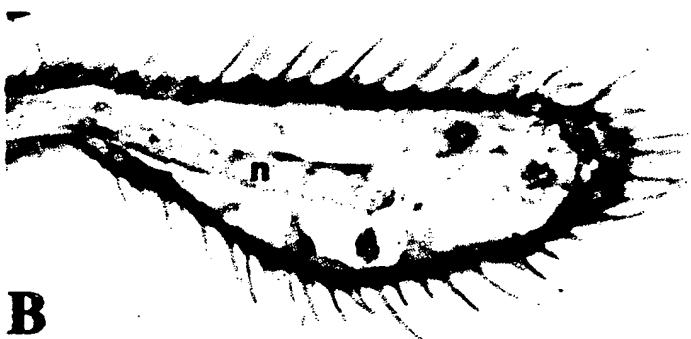


FIG. 4C

FIG. 4D



FIG. 3E

7

59D.1	306	DNEYWF-GRUHYAAIFSCNMHTQNRSFQRKMMLEVEQSLKKST--AVAGGMMRIHLDTFFSTLKGAYSLEFTIIIRMRK-----	379
23A.1	303	MVQESF-AELHYAVFCSNWDQASARGHMLLAERTKRMQL--LLAGNLVPIHLSTYVACWKGAYSFFITLMADRDG-----	377
33B.1	305	LMTMEF-DKLPYALFESSNMLKMDKRYNRSIIILMQLTLPVN--IKAGGIVGIDMSAFFATVRMAYSRYTLALS-----	375
33B.2	307	LISVEM-NQLTYALTYSSNMMSNRYSRIILIFNQLTLAEVQ--IKAGGMIGIGMNAFFATVRLAYSFFITLAM-----	376
33B.3	308	EVAEEL-ERLPYALFESSRMWDQSRDHRFDLITFQTLTGNRGWITKAGGLIELNLAFFATLKMAYSLEAVVVRAKGI-----	384
2F.1	325	RMRTQS-EALCDAFYDCNMIEQLPKFKRELFTLARTQPSL--IYAGNYIALSLETFEQVMRFTYSVFTLLLRK-----	397
22A.1	319	MIIDDC-QEMSNCLEFSDMTSADRRYKSTLVFLHNLOQPIIT--LTAGGVFPISMQTNLAWVKLAFSVITVIKQFNLAERFQ---	397
22A.2	319	MIMDDC-QEMADSLFQSDMTSADRRYKSTLVFLHNLOQPII--LTAGGVFPISMQTNLNMVKLAFTVVTIVKQFNLAERFQ---	397
47E.1	308	NLKTES-ASFEWALTYDSPMHESLGAGGASTICRSLLISMMR--AHRGFRITGYFFEANILVRTAMSYITMLRSFS-----	380
46F.1	307	EVTQRS-LDLPHELYKTSMDWDYRSRRIALLEMRHLSTLR--IRLNPISLGFDMLEFSSVSSFRVLTFLCTVANFHN-----	381
46F.2	310	EVTVQS-SRLCHSYSSQMTGWNRRNRIVILLMMORFNSPML-LSTFNPTFAFSEAFSGIVNCYSYMFALLKRVNS-----	384
22C.1	307	HVSESS-AAVADVLYDMENYKCDARTRKVILMLRRSQRAKT--IAPVFFTPSLPALQ--ILSTAGSYITLLKTFL-----	377
24D.1	298	HIMEAC-SNILEARSTFSSHMYGHSVRVQKMTLLMVARAQRVLT--IKIPFFSPSLETLS-ILRFTGSLIALAKSVI-----	369
43B.1	309	EICLEN-NRVAEAVYNVPMYEAGTRFRKTLLELMOTQHPME--IRVGNVYPMTLAMFQSLNNAYSYMFITMLRGVTGK-----	383
47E.2	327	LVYTQSVEVAQAQAFDINDMHTKSPGIQRDISFVILRAQKPLM--YVAEDFLPFTLGTMYLVKNCYRLLALMQESM-----	400
25A.1	322	AIVDDC-KELEHAILFHSAMWVQDKRYQRVTVIQLEKLOQPMPT--FTAMNIFNINLATININVAKFAFTVYAIASGMNLDQKLSIKE	403



FIG. 3C

4

59D.1	153	R-----GLMPAMFPFDWLHST---RNWYIANAYQIVIGISFQLLQNYVSDCFPAVVLCLISSHIKMLNRYNRFEEVGLDPARDAEK----	228
23A.1	148	L-----SLPMPMFPFDWKNSM---VAYIGALVFQIEGYVQIMQCFAADSFPPPLVLYLISEQCQLLIRISEIGYGYKTLEENEQ--	225
33B.1	149	R-----NLMYLGMPFYDFQATA---AIWISFSYDAIGSSLLILENLANDSYPPITFCVVSCHVRLLIMRLSRIGHDVKLSSSENT--	226
33B.2	151	H-----KLLYPAMFPYDVQATE---LIFWLSVTYQIAGVSLAILONLANDSYPPMTFCVVAGHVRLLAMRLSRIGQGPETIYLTG--	228
33B.3	149	T-SGNWELLYPAYFPFDLESNR---FLGAVALGYQVFSMLVEGFQGLGNDITYPTLTCLLAGHVRLLAMRLSRIGQGPETIYLTG--	230
2F.1	156	P-----DRELLYPAMFGVDNMHST---RNWVLINIYQIFGLIVQATONCASDSYPPAFCLCLTGHMRALFLVRIRIGCRTEKSNKGQTYE	237
22A.1	166	R-----RHAWMYFPYIDSEQ----FYMISS-IAECFLMTEATYMDLCTDVCPILISMLMARCHISLLKORLNLRSKPGRTEDEYL--	241
22A.2	166	R-----IHAWMYFPYVDPEKQ----FYMISS-IAEVLIRGWAVFMDLCTDVCPILISMVIAARCHITLLKORLNLRSKPGRTEDEYL--	241
47E.1	153	G-HAEPELPPFCLFPWNIHIR---NWVLSFIWSAFASTGVVLPVAVSLDTIFCSFTSNLCAFFKIAQYKVVRFKGGSLKESQATL--	233
46F.1	152	H-----LPLKTYNPLGENTGS---PAYWLLYCYQCLALSVCITNIGFDSLCSLFFFLKQCLDILAVRLDKIGRLITTSGGTVE--	228
46F.2	149	N---FGELPLAMLEVCSIEGWI---QWMSQYLFHSICLLPTCVLNITYDSVAYSLLCFLKVQLQMLVLRLEKLGVPVIEPQDNEKI--	227
22C.1	147	E-----LPFNIIILPSFAVOPG----VFPLTYVLLTASGACTVFAFSFVDGFFCSCLYICGAFRLVQODIRRIFADLHGVDVFTF--	222
24D.1	145	-----MFPDLLLLRLP-----LYPITYILVHWHGYYITVVCVFGADGFFLGFCLYFTVLLCLDDVCDLLEVENIEKSPSE--	214
43B.1	151	T-FFLPAHIFGLALPGVSMTSS---PWMEVITYLAQLPTPLLLSMNMPFVSLFAGLAIFGKAMLQILVHRLGQIGGEEQSEEFQ--	232
47E.2	164	L-LGEGKLPPFHSVYPFQWHRDLHPYTFWFLYIWQSLTSQHNLMSTLMVDMVGISTFLQATLNLKLLCIEIRKLGDMEVSDKRFHE--	248
25A.1	163	H-----RVPNYTYPFINWRVD-RQWMIQS-FLEYFTVGAYIYVATATDSYPPVIYVAALRTHILLKORLILYLGDPSPNEGSSDPS--	241



FIG. 3B

2

3

59D.1	73	TTFATCTACSVKCLLYAYNIKDVLEMERLRLDERVVGPEQRSIYGQ-----VRVQLRNVLVYVFIGIYMPICALFAELSFLKEE	152
23A.1	68	SLTVTSLNLMKFCMYVAQLTKMVEVQSLIGQLDARVSGESERHN-----MTEHLLPMSKLFQITYAVVFIIAAVPFVETE	147
33B.1	68	HFTSECLFCSYKFFCFRKLKEIKTIEGLLOQLDSRVESEEEERNYFNQ-----NPSRVARMLSKSYLVAAISAITATVAGLESTG	148
33B.2	70	PITACFFASFKFICFRKLSEIKETIILFKELDQALSRCEEFFNQ-----NTRREANFTWKSFIYVAGLSNISASVLEGGG	150
33B.3	69	TMSLTCVACSLKHVAHLYHLPOTIVEIESLIEQLDTFIASEQEHRYRD-----HVHCHARRFRCLYISFGMIYALFLFGVFNQV	148
2F.1	75	TITITDIVANLKFANVVMVRKQLHEIRSLRLMDARARLVGDPEEISA-----LRKEVNIAGTERTFASIFVFGTLLSCRVVVR	155
22A.1	88	EIGVNMYSKCAFTLIGFKRQEAQVLLDQDKRCLSDKERSTVHR-----YVAMGNFFDILYHIFYSTFVVMNFPYILLE	165
22A.2	88	QIGVNMYSKFSYLTMMGYKKRQEAQMSLDELDKRCVCDEERTIVHR-----HVALGNFCYIFYHIAIYTSFLISNFLSFTMK	165
47E.1	65	VALLITILGLFKFSMILYLRDFKRLIDKFRLLMSNEAEQEEYAEILNAANKQDQRMCTLFRTCFLLAWALNSVPLVRMGLSYWLA	152
46F.1	65	EVKAIIFILATSAGHTTKL-LSIKANNVQMEELFRRLDNEEFPRPGANEELIFAAACERSKLRDFYGALSFAALSMILIPQFALDWS	151
46F.2	65	EILKVFFMFATEISCMAKL-LHLKLSKRLAGLVDM-LSPFEGVKSE--QEQMQLDRVAVVRMNSYGIMSLGAASLILIVPCFD	148
22C.1	78	CPGTTKAVCVLKLWVFRS---NRRWAEIVQRLRAILSLLSSGTAT-----NAAFTLQPLIMGLYRWIVQLPGQT	146
24D.1	66	CPVASSILSLVKMWAIWY---QDELRSIIERRFYTLATQLTFLLLCC-----GFCTSTSYSVRHLIDNILRRTHGKDWIYETPEKM-	144
43B.1	65	FFFSAI FNALMRTWLVIKRRQFEFLGQLATLFHSILDSTDENGRGI--LRRAREARNLAILNLSASFIDIVGALFFEYKFPIGVV	150
47E.2	85	VWISGMALVFTKIFYMHLR---CDEIDELISDFEYNRELPHNIDEE-----VLGWQRLCYVIESGLYINCFLVNFSSAAIFLQP	163
25A.1	85	QLCLNTWCFAKJFFTLIVYTHRLKANKHFDELKCYCVKPAEKRKYRD-----MVATITRLYLTFFVWVYVLYATSTLLDGLLH	162



FIG. 3A

1
59D.1 1 -----MAEVRVDSLEFFKSHWTAWRVLGVAHFRVENWKNLYVFYSIVSNLLVTLCYIPVHLGISLFRN---RTITEDILNL 72
23A.1 1 -----MKLSETLKIDYFRVQLNARICGA-----LDLSEGRYWSWSMLLCILVYLPPTMLLRGVYS--FEDPVENNFSL 67
33B.1 1 -----MDSRRKVRSENLYKTYWLYMRLLGV-----EGDYPRRLVDFTITSFITILFPVHLILGMYKK-----PQIQVFRSL 67
33B.2 1 -----MDLKPRVIRSEDIYRTYWLWYHLLGL-----ESNFFLNRLDLVITIFVTIWPYTHLILGLFME---RSLGDVCKGL 69
33B.3 1 -----MWIIDLSFYRPFWICMRLLVP-TFFKDSSRPVQLYVWLLHILVTLWFPPLHLLHLLLL---PSTAEFFKNL 68
2F.1 1 -----MEKQEDFKLNTHSAVYHHWRVMEITGLMRPPGVSSLLYVVSITVNLVWTVLPPLSLLARLLFT---TNMAGLCENL 74
22A.1 1 -MLSKFFPHIKEPLSERVKS RDAFIYLD RVMMSFGNTEPENKRMILPYKLWLA FVNIWMLILLPTISISIEYLHRFKTFSAGEFLSSL 87
22A.2 1 -MLSQFFPHIKEPLSERVKS RDAFVYLD RVMMSFGNTPENKRMIDLHYKLWSTFVTLILFILLPISVSVEYIQRFKTSAGEFLSSI 87
47E.1 1 -----MDSFLQVQKSTIALLLGFDL FSENREMWKRPYRAMNVFSIAAIFPFI LAAVLHNW---KNVLLADAM 64
46F.1 1 -----MSKGVEIFYKGGKAFENILSLWPQIERWRRIHQVNVYHVIVFWVLLFDLLLVHV-----MANLSYMS 64
46F.2 1 -----MVTEDFYKYQVWYFQIL--GWQLPTWAADHQRRFQSNRFGFILVILFIMLLLF-SFEMLNNISQVR 64
22C.1 1 -----MTDSGQPAIADHFYRIPRISGLIVGLWQIRGGGGRPWHAHLLFVFAFAMVVVGAVGEVSYGCVHLDN-----LVVALEAF 77
24D.1 1 -----MERHYFMVPKFALSIGFYPEQKR-----TVLVKLSFFNFILTYGCAEAYYGIHYIPI----NIATALLDAL 65
43B.1 1 -----MTIEDIGLVGINVRMRRHLAV--LYPTPGSSWRKFAFVLPTAMNMQFVYLLRMWGD-----LPAFILNM 64
47E.2 1 MNDSGYQSNLSLLRVFLDEFRSVLRQESGLIPRLAFYVYRAFLSPLRYWINLFIMCNVMTIFWTMFVALPESK-----NVIEMGDD 84
25A.1 1 --MFGHFKLVYPAPISEPIQSRDSNAYMMETL RNSGLN--LKNDFGIGRKIRVFSFTYNMVLIPVSPFINYVIHLAEFPPELLQSL 84

06/11/90
 JUN 11 1990
 U.S. PAT. & TM. OFFICE

FIG. 2A

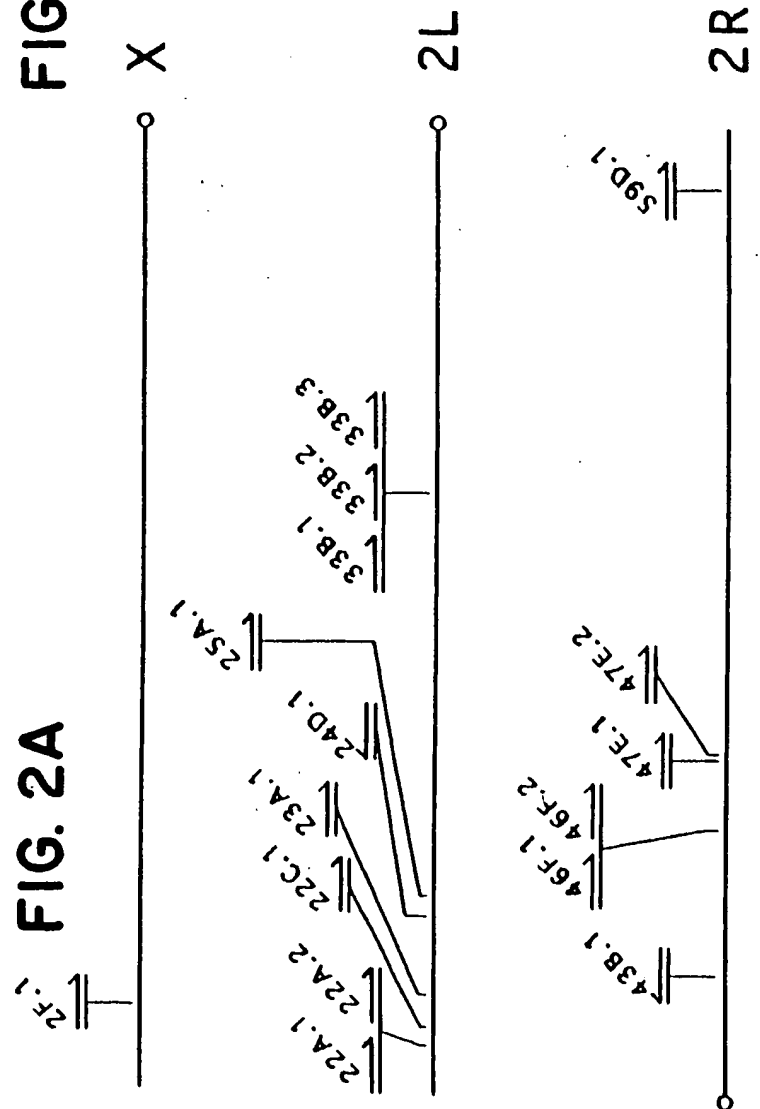


FIG. 2C

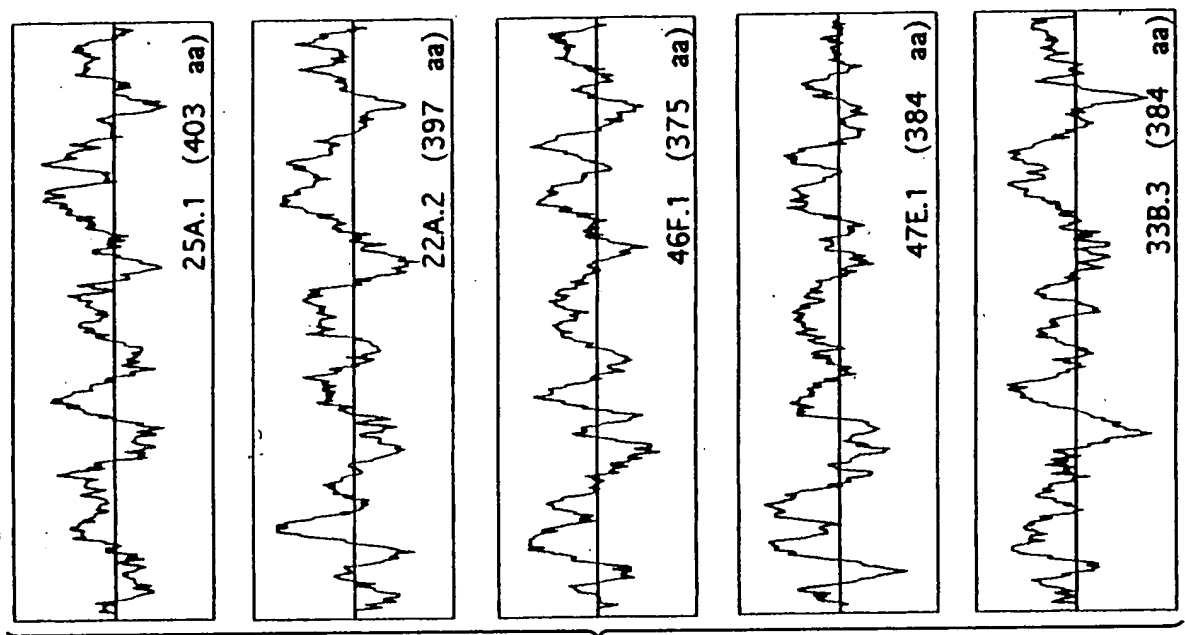
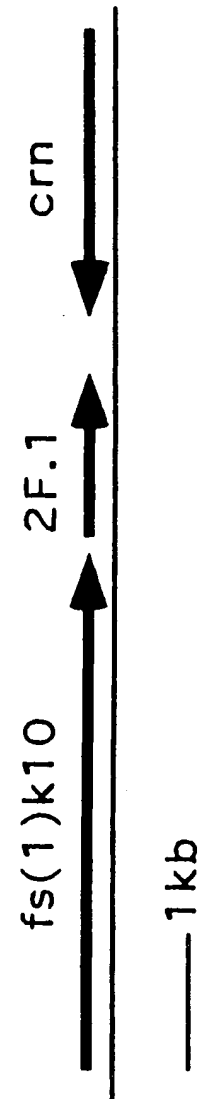


FIG. 2B



6810511

FIG. 1A

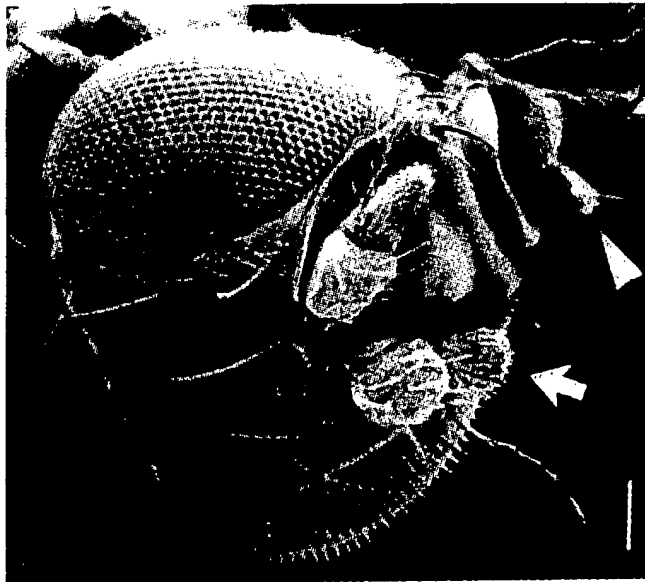
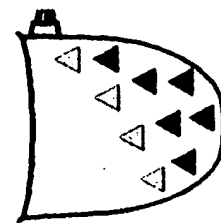


FIG. 1B

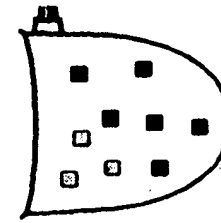


FIG. 1C



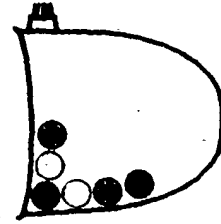
TRICHODEA

FIG. 1D



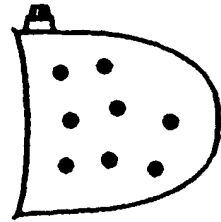
COELOCONICA

FIG. 1E



LARGE
BASICONICA

FIG. 1F



SMALL
BASICONICA